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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. W-3875 Total Pages 130

First Named Inventor or Application Identifier

DONALD D. HOLBROOK

Express Mail Label No. EM440646782US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO: Assistant Commissioner for Patents
 Box Patent Application
 Washington, DC 20231

1. ☒ Fee Transmittal Form
(Submit an original, and a duplicate for fee processing)
2. ☒ Specification [Total Pages 19]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the invention
 - Brief Summary of the invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
3. ☒ Drawing(s) (35 USC 113) [Total Sheets 1]
4. Oath or Declaration [Total Pages 5]
 - a. ☒ Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 17 completed)
[Note Box 5 below]
 - i. ☐ **DELETION OF INVENTOR(S)**
 Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
5. ☐ Incorporation By Reference (useable if Box 4b is checked)
 The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

6. ☐ Microfiche Computer Program (Appendix)
7. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Copy
 - b. ☐ Paper Copy (identical to computer copy)
 - c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

8. ☒ Assignment Papers (cover sheet & document(s))
9. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney
(when there is an assignee)
10. ☐ English Translation Document (if applicable)
11. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☒ Copies of IDS Citations
12. ☐ Preliminary Amendment
13. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
14. ☒ Small Entity ☐ Statement filed in prior application, Status still proper and desired
15. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
16. ☐ Other:

17. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:

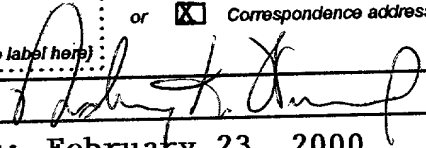
☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: _____

18. CORRESPONDENCE ADDRESS

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or ☒ Correspondence address below

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	WORREL & WORREL		Date: February 23, 2000	
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Attorney's Docket No. W-3875**PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: DONALD D. HOLBROOK

Serial No.:

Group No.:

Filed:

Examiner:

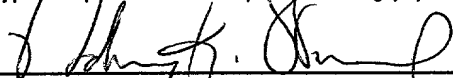
For: METHOD FOR TREATING
A WORK MATERIALCommissioner of Patents and Trademarks
Washington, D.C. 20231**EXPRESS MAIL CERTIFICATE**"Express Mail" label number EM440646782USDate of Deposit February 23, 2000I hereby certify that the following *attached* paper or fee

Utility Application Transmittal Form; Fee Transmittal Form;
\$345.00 filing fee; Recordation For Recording Assignment;
\$40.00 recording fee; Assignment; Drawing; Utility Patent
Application (19 pages) with (15) claims; Combined Declaration;
Submission Of Verified Statements; Verified Statement Claiming
Small Entity Status--Independent Inventor; Verified Statement
Claiming Small Entity Status--Small Business Concern; Form
Information Disclosure Statement; and return card.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Rodney K. Worrel

(typed or printed name of person mailing paper or fee)


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Attorney's Docket No. W-3875**PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**☒ In re application of: **DONALD D. HOLBROOK**

Group No.

Serial No.: 0 /

Examiner:

Filed:

For: ***METHOD FOR TREATING** Issued :
A WORK MATERIAL☐ Patent No.:

**NOTE: Insert name(s) of inventor(s) and title also for patent. Where submission is with respect to a maintenance fee payment also insert application serial number and filing date and mark Form Box M. Fee.*

Commissioner of Patents and Trademarks
Washington, D.C. 20231**SUBMISSION OF VERIFIED STATEMENT(S) TO ESTABLISH
SMALL ENTITY STATUS**

The attached statement is being submitted to establish small entity status in this

☒ application☐ patent

by the:

(check all applicable boxes below)

- a. ☒ independent inventor(s) 37 CFR 1.9(c) and 1.27(b)
b. ☐ non-inventor supporting claim by another 37 CFR 1.9(c) and 1.27(b)

CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8a)

I hereby certify that this correspondence is, on the date shown below, being:

MAILING☒ deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231Date: 2/23/00**Express Mail**Label No. EM440646782US**FACSIMILE**☐ transmitted by facsimile to the Patent and Trademark Office

Signature

Rodney K. Worrel

(type or print name of person certifying)

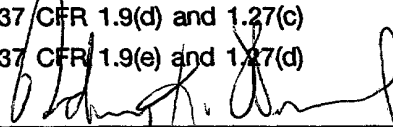
(Submission of Verified Statement(s) to Establish Small Entity Status[7-11])

(Submission of Verified Statement(s) to Establish Small Entity Status[7-11])

- c. ☒ small business concern
d. ☐ non-profit organization

37 CFR 1.9(d) and 1.27(c)

37 CFR 1.9(e) and 1.27(d)


SIGNATURE OF ATTORNEY

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Fresno, California 93711-1258

Attorney's Docket No. W-3875**PATENT**Applicant or Patentee: DONALD D. HOLBROOK

Serial or Patent No.: 0 / _____

Filed or Issued: _____

For: METHOD FOR TREATING A WORK MATERIAL**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY
STATUS (37 CFR 1.9(f) and 1.27(b))—INDEPENDENT INVENTOR**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled METHOD FOR TREATING A WORK MATERIAL

described in

☒ the specification filed herewith.☐ application serial no. 0 / _____, filed _____.☐ patent no. _____, issued _____.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

☐ no such person, concern, or organization☒ persons, concerns or organizations listed below *

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27).

FULL NAME AG FORMULATORS, INC.ADDRESS 5227 E. Central Ave., Fresno, CA 93725☐ INDIVIDUAL ☒ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

FULL NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

FULL NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

DONALD D. HOLBROOK

Name of inventor

Donald D Holbrook

Date February 23, 2000

Signature of Inventor

Name of inventor

Date _____

Signature of Inventor

Name of inventor

Date _____

Signature of Inventor

Attorney's Docket No. W-3875**PATENT**Applicant or Patentee: DONALD D. HOLBROOK

Serial or Patent No.: 0 / _____

Filed or Issued: _____

For: METHOD FOR TREATING A WORK MATERIAL**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY
STATUS (37 CFR 1.9(f) and 1.27(c))—SMALL BUSINESS CONCERN**

I hereby declare that I am

- ☐ the owner of the small business concern identified below:
- ☒ an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN AG FORMULATORS, INC.ADDRESS OF CONCERN 5227 E. Central Ave., Fresno, CA
93725

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third-party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed, to and remain with the small business concern identified above with regard to the invention, entitled

METHOD FOR TREATING A WORK MATERIALby inventor(s) DONALD D. HOLBROOK

described in

- ☒ the specification filed herewith.
- ☐ application serial no. 0 / _____, filed _____.
- ☐ patent no. _____, issued _____.

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights in the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27).

NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small business entity is no longer appropriate. (37 CFR 1.28(b)).

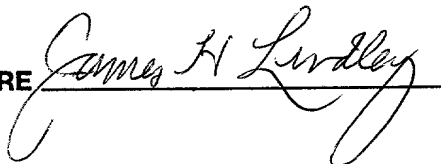
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING JAMES H. LINDLEY

TITLE OF PERSON OTHER THAN OWNER SECRETARY/TREASURER

ADDRESS OF PERSON SIGNING 5227 E. Central Ave., Fresno,
CA 93725

SIGNATURE



Date February 23, 2000

(Small entity-Small Business **[7-4]**—page 2 of 2)

TITLE OF THE INVENTION

METHOD FOR TREATING A WORK MATERIAL

CROSS-REFERENCE TO RELATED APPLICATIONS

Not Applicable.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not Applicable.

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

The present invention relates to a method for treating a work material and, more particularly, to such a method which has particular utility in the treatment of target constituents such as maybe borne by water and the like.

DESCRIPTION OF THE PRIOR ART

The treatment of work materials of a wide variety of types for the purpose of rendering of them for use suitable in specific manners and for specific purposes is, of course, at least as old as recorded human history. Since one of the necessities of life for human beings, as well as virtually all other creatures, is the consumption of water, the availability of an access to water constitutes one of the earliest examples of such material

treatment. In addition to its necessity as a life sustaining substance, water has also long been known for usage for a host of different purposes including only by way of example, transportation, energy, material processing, and a wide assortment of other usages. In the case of water, used for any such desired purpose, the water must, in many instances, be rendered suitable for the prescribed usage.

The most critical requirements for any specified usage of water or the like is, of course, for human consumption. Thus, it has long been known to treat water in a range of volumes from small quantities to enormous quantities to render the water suitable for human consumption, as well as other usages requiring similarly critical parameters. The treatment required for the water received, of course, is dependent upon the source and condition of the water involved. In some instances the source of the water involved is suitable as received and requires no such treatment. In many, or most, other circumstances the water requires treatment for various purposes.

One of the most common requirements for treating water to render it suitable for human consumption is to disinfect the water to avoid contaminants of a wide variety of types. A relatively common method for accomplishing this purpose, in many areas of the world including the United States, is to employ ozone in the treatment of the

water received for the disinfection of the water prior to release for the desired human consumption. Ozone has been found desirable for this purpose in that it also efficiently treats ground waters containing significant amounts of iron, manganese, nitrite ion and hydrogen sulfide. Ozone is additionally desirable in that it does not produce some by-products and in that it does not, in itself, introduce undesirable substances into the resultant water.

However, the use of ozone for this purpose does contribute to a number of side effects or conditions which detract from its practicality for use. For example, any ozone gas produced in the treatment operation cannot be vented to the atmosphere, but must be removed requiring extensive equipment for the purpose, more particularly catalytic quenchers. Furthermore, the excess ozone which is dissolved in the treated water must be quenched to avoid corrosion after release from the treatment facility and to allow further down stream treatment such as chlorination to be accomplished at the desired level prior to distribution to the public. The most common prior art means for treating such excess ozone is the use of sodium bisulfite which, itself, possesses a number of disadvantageous side effects such as the venting of sulfur dioxide gas.

Accordingly, with the use of sodium bisulfite, a variety of types of processing systems are required to handle the by-products produced therefrom. There are additional questions regarding sulfites which may accidentally be released, collect, and otherwise contribute toward health hazards and other side effects of undesirable character.

Therefore, it has long been known that it would be desirable to have a method for treating a work material which was capable effectively of treating a target constituent of the work material substantially without the production of undesirable side effects; which had particular utility in the treatment of such work materials as water received from available sources in conditions which do not permit, without treatment, usage for the prescribed purpose; which was adaptable for usage in the treatment of such water received in a range of volumes from relatively small quantities to massive quantities such as may be involved in commercial or municipal usages; which had particular utility in permitting ozone to be employed in the treatment of such water rendering it suitable for human consumption and other usages, while substantially eliminating the undesirable side effects of the use of such ozone; which was widely adaptable for usage in the treatment of a variety of work materials including, by way of example, water treatment systems of a wide variety of types; and which was otherwise entirely successful in achieving its operational objectives.

BRIEF SUMMARY OF THE INVENTION

Therefore, it is an object of the present invention to provide an improved method for treating a work material.

Another object is to provide such a method which is widely adaptable for usage in a wide variety of specific embodiments and in a wide variety of environments as applied to a multiplicity of work materials.

Another object is to provide such a method which is inexpensive and dependable in use while producing substantially no disadvantageous side affects.

Another object is to provide such a method which has particular utility in the treatment of water received from a wide variety of sources and in an otherwise unacceptable form for consumption by human beings and other forms of life.

Another object is to provide such a method which has particular utility when adapted to usage in waste water treatment systems such as used by municipalities, industries and other waste water treatment systems.

Another object is to provide such a method which avoids the use of secondary systems to recover or contain any by-products produced in the use of conventional methods for such treatment.

Another object is to provide such a method which permits the usage of a variety of forms of treating agent in the practice of the method thereof so as to accommodate to such secondary concerns as availability, cost and the like.

Another object is to provide such a method which, in the preferred embodiment, employs a readily available treating agent which is fully effective in achieving its operational objectives.

Further objects and advantages are to provide an improved method for the purposes described which is dependable, economical and fully effective in accomplishing its intended purposes.

These and other objects and advantages are achieved, in the preferred embodiment of the present invention, in a method for treating a work material containing a target constituent including the steps of presenting the work material for treating in accordance with the method; and applying a treating agent to the work material operable to treat the work material to achieve a predetermined objective relative to the target constituent in the work material.

BRIEF DESCRIPTION OF THE DRAWING

Fig. 1 is a schematic diagram of the method of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

Referring more particularly to the drawing, the method for treating a work material of the present invention is generally indicated by the numeral 10 in Fig. 1. As shown schematically therein a work material containing a target constituent is generally indicated by the numeral 20. In accordance with the method of the present invention, a treating agent is generally indicated by the numeral 30. An arrow schematically illustrating the application of the treating agent to the work material 20 is indicated by the numeral 31. A resultant material achieved by practice of the method of the present invention is generally indicated by the numeral 40. Arrow 41 indicates the transformation of the work material 20 into the resultant material 40.

The method 10 is adaptable to a wide variety of operative embodiments and environments of use. The particular work material 20 can be of a variety of types including, but not limited to, water such as received by water treatment systems, municipal waste water treatment systems, potable water treatment systems, industrial recycled and waste water treatment systems and the like.

It will be understood that the work material 20 contains a target constituent which, in the illustrative example, is ozone. As previously discussed, ozone is used in the disinfection of drinking water in accordance with conventional practice.

More specifically, in the example of the present invention hereinafter to be discussed it is the excess ozone dissolved in the treated water which is desired to be removed. For illustrative convenience, it will be understood that the ozone has been employed efficiently to treat ground water containing significant amounts of iron, manganese, nitrite ion and hydrogen sulfide. The ozone may create some by-products, as a result of the disinfection process, such as bromine compounds, but does not, in itself, add anything to the end product which is, in the illustrative example drinking water. In addition, the ozone, particularly with increasing usage presents other concerns. For example the ozone gas which is not dissolved in the treated water cannot be vented to the environment and must be removed. Conventionally this is accomplished by converting the ozone to oxygen by catalytic quenchers, by heating, or by passing the ozone through activated carbon filters. In addition, the excess ozone dissolved in the treated water must be quenched to prevent corrosion downstream resulting therefrom and to allow chlorination to the desired level for distribution to water mains.

As previously noted, the most commonly used conventional method for quenching excess ozone in such disinfection systems has been by the use of sodium bisulfite. The typical source for sodium bisulfite is refinery waste which raises questions in and of itself.

The inventor has discovered that ozone quenching in such waters can readily be accomplished without known detrimental side effects using thiosulfate and may include, in particular, calcium thiosulfate, potassium thiosulfate, sodium thiosulfate, or ammonium thiosulfate.

The resultant material 40, in the illustrative example, is water suitable for drinking upon release from the particular water treatment system in which it is employed.

EXAMPLE

The specific example of the practice of the method of the subject invention calls for the use of calcium thiosulfate in solution. While a variety of calcium thiosulfate solutions can be employed, in the illustrative example hereof, calcium thiosulfate solution sold under the trademark CAPTOR[®] manufactured by Best Sulfur Products in Fresno, California, is employed. The particular environment is a drinking water plant receiving water to be processed and containing ozone as the target constituent to be removed, or more specifically, excess ozone in the water to produce suitable drinking water. As discussed, the ozone has been added upstream in the drinking water plant for purposes of disinfection. The excess ozone is to be removed from the water downstream therefrom.

The calcium thiosulfate solution was added to the water passing through the drinking water plant containing the excess ozone to be removed and was applied at the rate of four (4) gallons of CAPTOR[®] calcium thiosulfate solution per one million (1,000,000) gallons per day of water to be treated. When applied at this rate, it was found that the excess ozone was substantially entirely removed from the water upon release downstream from the drinking water plant.

Experimentation has confirmed that the calcium thiosulfate as well as the resultant material 40 consisting of the resultant drinking water is nontoxic, requires no secondary containment and does not need to be heated in cold weather to prevent crystallization. Furthermore, it does not need insulation or a scrubber in the summer to prevent the release of sulfur dioxide, as is the case in the use of the conventional sodium bisulfite, since no such gases or other by-products are produced.

Tests have revealed that the resultant material, or water, 40 is clear, a neutral solution with a pH of 6.5 to 7.5 and is not corrosive to equipment or damaging in any way to humans or animals. In fact, calcium thiosulfate in the form sold under the trademark CAPTOR[®] has been used safely in medicine as an antidote for heavy metal and cyanide poisoning. It is believed that even accidental heavy overdosing of the calcium thiosulfate to the water would present no hazard to the public.

Therefore, the method for treating a work material of the present invention is capable effectively of treating a target constituent of the work material substantially without the production of undesirable side effects; has particular utility in

substantially without the production of undesirable side effects; has particular utility in the treatment of such work materials as water received from available sources in conditions which do not permit, without treatment, usage for the prescribed purpose; is adaptable for usage in the treatment of such water received in a range of volumes from small quantities to massive quantities such as may be involved in commercial or municipal usages; has particular utility in permitting ozone to be employed in the treatment of such water rendering it suitable for human consumption and other usages, while substantially eliminating the undesirable side effects of the use of such ozone; is widely adaptable for usage in the treatment of a variety of work materials in a variety of operative environments including, by way of example, water treatment systems of a wide variety of types; and is otherwise entirely successful in achieving its operational objectives.

Although the invention has been herein shown and described in what is conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope of the invention which is not to be

CLAIMS

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A method for treating a work material containing a target constituent comprising the steps of presenting said work material for treating in accordance with said method; and applying a treating agent to said work material operable to treat said work material to achieve a predetermined objective relative to the target constituent in said work material.
2. The method of claim 1 wherein said target constituent of the work material contains ozone.
3. The method of claim 1 wherein said work material is an aqueous solution.
4. The method of claim 3 wherein the target constituent is substantially ozone.

5. The method of claim 1 in which in the applying step said treating agent is a thiosulfate.
6. The method of claim 5 wherein said treating agent is a thiosulfate selected from the group consisting of calcium thiosulfate, potassium thiosulfate, sodium thiosulfate and ammonium thiosulfate.
7. The method of claim 6 wherein said treating agent is calcium thiosulfate.
8. The method of claim 7 wherein said work material is water.
9. The method of claim 8 wherein said target constituent is ozone.

10. The method of claim 9 in which, in said presenting step, the water is passed through a water treatment system and, in said applying step, said calcium thiosulfate is applied directly to the water as it is passed through said water treatment system.
11. The method of claim 10 in which, in the applying step, the calcium thiosulfate is applied directly to the water as it is passed through said water treatment system at the rate of substantially about four (4) gallons of said calcium thiosulfate per one million gallons (1,000,000 gallons) per day of said water.
12. The method of claim 10 wherein, as a result of said applying step, said calcium thiosulfate quenches said ozone in the water before it passes from the water treatment system substantially without the release of undesirable by-products therefrom.

13. The method of claim 10 wherein, as a result of said applying step, said calcium thiosulfate quenches excess ozone in the water before it passes from the water treatment system substantially without the release of undesirable by-products therefrom.
14. The method of claim 13 in which in said presenting step said water treatment system receives said water in a form which would otherwise be considered waste water without treatment by said water treatment system.
15. The method of claim 10 in which, in the applying step, said calcium thiosulfate is applied in an amount sufficient substantially to render harmless said ozone in the water.


DONALD D. HOLBROOK

ABSTRACT OF THE DISCLOSURE

A method for treating a work material containing a target constituent, including the steps of presenting the work material for treating in accordance with the method; and applying a treating agent to the work material operable to treat the work material to render substantially harmless the target constituent in the work material.

18

SEQUENCE LISTING

Not Applicable.

2P0010
SPECIFIC\
S\
C\
C\

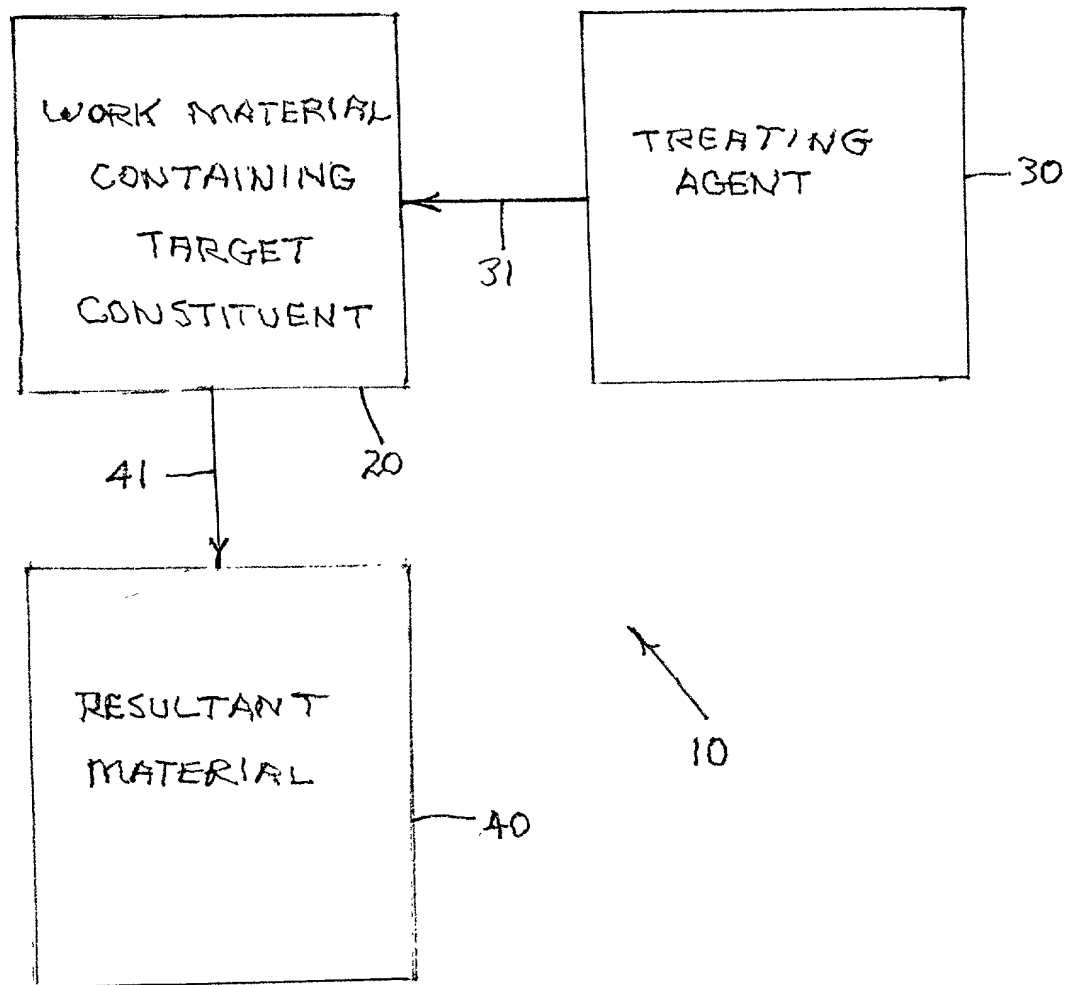


FIG. 1

Attorney's Docket No. W-3875

PATENT

COMBINED DECLARATION AND POWER OF ATTORNEY

(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,
CONTINUATION OR C-I-P)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is of the following type: (check one applicable item below)

- ☒ original
☐ design
☐ supplemental

NOTE: If the declaration is for an International Application being filed as a divisional, continuation or continuation-in-part application, do not check next item; check appropriate one of last three items.

- ☐ national stage of PCT

NOTE: If one of the following 3 items apply, then complete and also attach ADDED PAGES FOR DIVISIONAL, CONTINUATION OR C-I-P.

- ☐ divisional
☐ continuation
☐ continuation-in-part (C-I-P)

INVENTORSHIP IDENTIFICATION

WARNING: If the inventors are each not the inventors of all the claims, an explanation of the facts, including the ownership of all the claims at the time the last claimed invention was made, should be submitted.

My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

METHOD FOR TREATING A WORK MATERIAL

SPECIFICATION IDENTIFICATION

the specification of which: (complete (a), (b) or (c))

- (a) ☒ is attached hereto.
(b) ☐ was filed on _____ as ☐ Serial No. 0 / _____
or ☐ Express Mail No., as Serial No. not yet known _____
and was amended on _____ (if applicable).

NOTE: Amendments filed after the original papers are deposited with the PTO which contain new matter are not accorded a filing date by being referred to in the declaration. Accordingly, the amendments involved are those filed with the application papers or, in the case of a supplemental declaration, are those amendments claiming matter not encompassed in the original statement of invention or claims. See 37 CFR 1.67.

Express Mail Label

No. EM440646782US

Date 2/23/00

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- (c) ☐ was described and claimed in PCT International Application No. _____ filed on _____ and as amended under PCT Article 19 on _____ (if any).

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information

- ☒ which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56

(also check the following items, if desired)

- ☒ and which is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent, and
- ☒ In compliance with this duty there is attached an information disclosure statement in accordance with 37 CFR 1.98.

PRIORITY CLAIM (35 U.S.C. § 119)

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

(complete (d) or (e))

- (d) ☒ no such applications have been filed.
- (e) ☐ such applications have been filed as follows.

NOTE: Where item (c) is entered above and the International Application which designated the U.S. itself claimed priority check item (e), enter the details below and make the priority claim.

(Declaration and Power of Attorney [1-1]—page 2 of 5)

**A. PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119**

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 USC 119
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>

**ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

NOTE: If the application filed more than 12 months from the filing date of this application is a PCT filing forming the basis for this application entering the United States as (1) the national stage, or (2) a continuation, divisional, or continuation-in-part, then also complete ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR C-I-P APPLICATION for benefit of the prior U.S. or PCT application(s) under 35 U.S.C. § 120.

POWER OF ATTORNEY

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number)

Rodney K. Worrel; Registration No. 27,475

(check the following item, if applicable)

- ☐ Attached as part of this declaration and power of attorney is the authorization of the above-named attorney(s) to accept and follow instructions from my representative(s).

(Declaration and Power of Attorney [1-1]—page 3 of 5)

SEND CORRESPONDENCE TO

Rodney K. Worrel
WORREL & WORREL
St. Croix Professional Center
2109 W. Bullard Avenue, Suite 121
Fresno, California 93711-1258

DIRECT TELEPHONE CALLS TO:
(Name and telephone number)

Rodney K. Worrel
(559) 431-4391

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE(S)

NOTE: Carefully indicate the family (or last) name as it should appear on the filing receipt and all other documents.

Full name of sole or first inventor

DONALD D. HOLBROOK
(GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)
Inventor's signature Donald D Holbrook
Date 2/23/00 Country of Citizenship U.S.A.
Residence 653 Pintail Circle, Fresno, CA 93720
Post Office Address 653 Pintail Circle, Fresno, CA 93720

Full name of second joint inventor, if any

(GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)
Inventor's signature _____
Date _____ Country of Citizenship _____
Residence _____
Post Office Address _____

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Full name of third joint inventor, if any

(GIVEN NAME)

(MIDDLE INITIAL OR NAME)

FAMILY (OR LAST NAME)

Inventor's signature _____

Date _____ Country of Citizenship _____

Residence _____

Post Office Address _____

CHECK PROPER BOX(ES) FOR ANY OF THE FOLLOWING ADDED PAGE(S) WHICH
FORM A PART OF THIS DECLARATION

- ☐ Signature for fourth and subsequent joint inventors. *Number of pages added* _____

* * *

- ☐ Signature by administrator(trix), executor(trix) or legal representative for deceased or incapacitated inventor. *Number of pages added* _____

* * *

- ☐ Signature for inventor who refuses to sign or cannot be reached by person authorized under 37 CFR 1.47. *Number of pages added* _____

* * *

- ☐ Added page for signature by one joint inventor on behalf of deceased inventor(s) where legal representative cannot be appointed in time (37 CFR 1.47).

* * *

- ☐ Added pages to combined declaration and power of attorney for divisional, continuation, or continuation-in-part (C-I-P) application.

☐ Number of pages added _____

* * *

- ☐ Authorization of attorney(s) to accept and follow instructions from representative.

* * *

(If no further pages form a part of this Declaration, then end this Declaration with this page and check the following item:)

- ☒ This declaration ends with this page.